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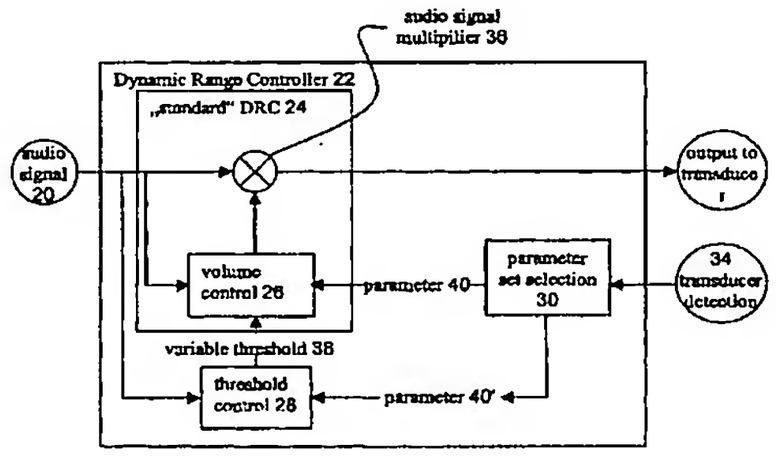
(54) Title: DYNAMIC RANGE CONTROL OF AN AUDIO SIGNAL AND METHOD OF ITS OPERATION



(57) **Abstract:** The present invention relates to electric audio devices and to communication devices. It also relates to the protection and increased performance of audio devices and electro acoustic 5 transducers like loudspeakers and headphones in portable devices and fixed installed equipment in entertainment products. The present invention provides a method for operating a dynamic range control with an adaptive threshold. A dynamic range control comprises at least an audio signal input, an audio signal output and a power or volume control. The method comprises receiving a number of thresholds comprising at least a maximum power level for short time interval operation and a maximum power level for long time operation of an electro acoustic transducer. The method further comprises continuously detecting the power of the audio input signal. The method further short term controls the power of the output signal in a way that the power of the output signal is reduced in a way that it substantially equals said maximum power level for short time operation, in case that the detected power of said audio signal input exceeds said maximum power level for short term interval operation. The method further long term controls the power of the output signal in a way that the power of the output signal is reduced until it substantially equals said maximum power level for long time operation, if the determined power of said audio signal exceeds said maximum power level for long time operation, for at least a predetermined period of time. That is if this period of time is exceeded the long term control is operated, whereas if the time period is not attained only short time control as above is operated.

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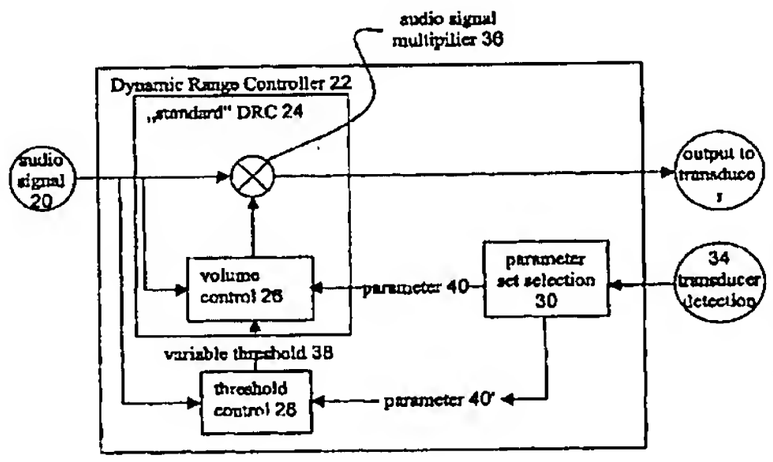

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